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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,134	03/12/2001	Shigehiko Terashima	1095.1167	3262
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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MILEF, ELDA G	
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			3628	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/803,134	<b>Applicant(s)</b> TERASHIMA, SHIGEHICO	
	<b>Examiner</b> Elda Milef	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3628

**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts;  
and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Art Unit: 3628

As to the technology requirement, note MPEP Section 2106 IV 2(b). Also note In re Waldbaum, 173USPQ 430 (CCPA 1972) which teaches "useful arts" is synonymous with "technological arts." The invention in the body of the claim must recite technology. If the invention is not tied to technological art, environment, or machine, the claim is not statutory. Ex parte Bowman 61USPQ2d 1665).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2-4, 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus et al. (U.S. Patent No. 4,674,044) in view of Lupien et al. (U.S. Patent No. 6,012,046).

Art Unit: 3628

**Re claim 6:** Kalmus et al. disclose:

a) specifying a price specification of securities to be bought or sold via a computer;

(b) specifying a volume of the securities;

(c) specifying conditions for buying or selling the securities;

(d) issuing an order via a computer for the volume of the securities at the price under the conditions;

("The processor 10 first determines whether or not each received order can be executed, i.e., "qualifies" the order. There are various reasons why an order will not be executed by the market maker. Thus, for example, the customer may seek to sell stock above the current bid price or to purchase the security below the current asked price. A customer may seek to trade a number of shares which exceeds the amount which the particular market maker is willing to accommodate, either in gross or for any one order. Orders not executable, i.e., orders not qualified, are either stored in memory in the processor 10 for later execution if they become qualified (such as by a favorable change in the market price for a security which can then accommodate the customer's price limits) or are forwarded to other market makers for potential execution over communication links 23 or 26.

Art Unit: 3628

Assuming that an order is executable, the processor 10 "executes" the order, appropriately adjusting all balances. Information characterizing the executed order is sent to computer 13 for customers of that brokerage house or reported to the appropriate other institution via links 23 or 26.")-see col. 5, lines 6-27 and ("The order is qualified for execution by comparing its specific content fields with predetermined stored parameters.")-see col. 1, lines 62-64.

Kalmus et al. do not disclose:

(e) inhibiting the order from being displayed at a terminal involved in a third party. Lupien et al. however, discloses ("Various companies and exchanges operate computerized crossing networks, also called anonymous matching systems")-see col. 1, lines 41-43 and ("once the satisfaction density profile is complete, the trader causes the satisfaction density profile to be transmitted to a central matching controller("CMC") , which anonymously matches buy and sell orders...")-see col. 4, lines 27-29. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify Kalmus et al. to include anonymous trading as was done by Lupien et al. in order to avoid having other participants influence the price of the stock.

Art Unit: 3628

(f) processing the order that is inhibited from being displayed in preference to another order. Lupien et al. disclose ("Modifications to Accommodate Stock Exchange Rules (112) Most organized stock exchanges operate with rigid rules as to execution of orders, for example, requiring priority be given to orders exhibiting the best price, regardless of size or any other consideration (such as mutual satisfaction). The present invention, if desired can be implemented to comply with such exchange rules. Thus, variations of the principles discussed above can be made so that the crossing network will accommodate such stock exchange rules. Other such variations are possible within the scope of the invention.")-see col. 19, lines 43-52.

Therefore, it would have been obvious at the time the invention was made, to modify Kalmus et al. to include processing the anonymous order prior to another order as done by Lupien et al. in order to comply to stock exchange rules.

**Re claim 2:** Kalmus et al. disclose:

step (a) specifies the price of the securities that has a given range. ("If the order is not a market order but rather is to be executed at or better than a customer specified price...")-see col. 6, lines 25-27 and fig.2.and ("PR/M An order variable field containing a customer price for a limit order

Art Unit: 3628

(minimum price for a sale of securities or a maximum price he will pay for a purchase) - or a code designating a market order where the customer will accept the currently prevailing market price.")-see col. 2, lines 64-68.

**Re claim 3:** Kalmus et al. disclose:

step (b) specifies the volume of the securities that has a given range. (" SSZ(STK) The number of shares of each stock STK that the market maker will accept from customer sales at a particular price (a sell size array). ORSZ(STK) The maximum acceptable order size which the system operator will accept for the stock STK.")-see col. 2 lines 64-68, and col.3, lines 33-39.

**Re claim 4:** Kalmus et al disclose:

step (c) specifies a condition that inhibits partial agreement between orders at a particular point in time. ("The processor 10 first determines whether or not each received order can be executed, i.e., "qualifies" the order. There are various reasons why an order will not be executed by the market maker. Thus, for example, the customer may seek to sell stock above the current bid price or to purchase the security below the current asked price. A customer may seek to trade a number of shares



Art Unit: 3628

which exceeds the amount which the particular market maker is willing to accommodate, either in gross or for any one order. Orders not executable, i.e., orders not qualified, are either stored in memory in the processor 10 for later execution if they become qualified (such as by a favorable change in the market price for a security which can then accommodate the customer's price limits...)-see col. 5, lines 6-20.

**Re claim 7:** Kalmus et al. disclose:

further comprising changing the conditions on the order issued by said step (d). ("the processor 10 in accordance with the instant invention signals the trader at station 15 who is then given the opportunity to readjust his quantity or other market-characterizing criteria.")-see col. 5, lines 37-40.

**Re claim 8:** Kalmus et al. do not disclose:

further comprising canceling the order issued by said step (d). Lupien et al. shows ("To operate the present invention as a continuous crossing network, then control should return to step 108 whenever a new order is entered or an **existing order canceled** or modified.")-see col. 11, lines 17-20. It would have obvious to one having ordinary skill in the art at the time of the applicant's invention to modify Kalmus et al. to include

Art Unit: 3628

canceling an existing order as was done by Lupien et al. in order to give the trader the option to end the transaction if he is not satisfied with the conditions.

**Re claim 9:** Kalmus et al. do not disclose:

wherein said canceling the order cancels the order even if a partial agreement with another order is made. Lupien et al. shows a computerized crossing network that allows traders to input as orders a satisfaction density profile which incorporates a two-dimensional format one dimension being price, the other being size of a transaction, that as a whole characterize the trader's degree of satisfaction at each (price, size) and ("Each element of the satisfaction density profile, called a satisfaction density value, indicates the trader's degree of satisfaction to trade that size order at that price. In the representative embodiment, each satisfaction density value is a number between zero and one, with zero representing no satisfaction (i.e., will under no circumstances trade that quantity at that price) and one representing total satisfaction.")-see col. 4, lines 8-21. The invention by Lupien et al. discloses a partial agreement because the trader ranks his satisfaction in the price and quantity available. Therefore, if the trader agrees with the price but not the

Art Unit: 3628

quantity of shares, he will rank that particular transaction as having a low satisfaction rate. Also, Lupien et al. shows ("To operate the present invention as a continuous crossing network, then control should return to step 108 whenever a new order is entered or an **existing order canceled** or modified.")-see col. 11, lines 17-20. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify Kalmus et al. to include canceling an order that is in partial agreement as was done by Lupien et al. in order to give the trader or investor an option to end the transaction if he is not satisfied with the conditions.

**Re claim 10:** Further a computer-readable recording medium storing a program causing a computer to function would have been necessary to perform previously rejected claim 6 and is therefore rejected using the same art and rationale.

**Re claim 11:** Further a transaction supporting apparatus would have been necessary to perform previously rejected claim 6 and is therefore rejected using the same art and rationale.

**Re claim 12:** Kalmus et al. do not disclose:

Art Unit: 3628

inhibiting a securities order; Lupien et al. however, discloses ("Various companies and exchanges operate computerized crossing networks, also called anonymous matching systems")-see col. 1, lines 41-43 and ("once the satisfaction density profile is complete, the trader causes the satisfaction density profile to be transmitted to a central matching controller("CMC") , which anonymously matches buy and sell orders...")-see col. 4, lines 27-29. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify Kalmus et al. to include inhibiting the order from being displayed or anonymous trading as was done by Lupien et al. in order to avoid having other participants influence the price of the stock.

giving preference to the inhibited securities order over another securities order. Lupien et al. disclose ("Modifications to Accommodate Stock Exchange Rules (112) Most organized stock exchanges operate with rigid rules as to execution of orders, for example, requiring priority be given to orders exhibiting the best price, regardless of size or any other consideration (such as mutual satisfaction). The present invention, if desired can be implemented to comply with such exchange rules. Thus, variations of the principles discussed above can be made so that the crossing network will accommodate

Art Unit: 3628

such stock exchange rules. Other such variations are possible within the scope of the invention.")-see col. 19, lines 43-52.

Therefore, it would have been obvious at the time the invention was made, to modify Kalmus et al. to include processing the anonymous order prior to another order as done by Lupien et al. in order to comply to stock exchange rules.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 2-4, 6-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Espinoza, Galina. *Your Fund's New Best Friend*. Money. New York: Feb 1999. Vol. 28, Iss. 2; p. 148. Cited for its reference to a high tech trading system that allows fund managers and other institutional investors to place trades anonymously and have them executed almost immediately, without influencing the price of the stock.

Mulligan, Thomas S. *Market Savvy; Schwab, Markets Battle Centralization of System; Wall St.: Chiefs of NYSE and Nasdaq*

Art Unit: 3628

*Call Idea 'Anti-Competitive', but Securities Firms Argue Against 'fragmentation.'* *Los Angeles Times*. Los Angeles, Calif.: Mar 1, 2000. p.4. Cited for its reference to large institutional orders are often given trading priority over retail orders regardless of price.


Peltz, Michael. *Instinet's Identity Crisis*. Institutional Investor. New York: Nov 1995. Vol. 29, Iss. 11; pg. 53. Cited for its reference to Instinet's electronic book order that allows a user to anonymously enter his own order to buy or sell a given number of shares at a given price. The order may or may not be filled at that price-another user may try to negotiate a better price through electronic messaging.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

Art Unit: 3628

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

  
HYUNG SOUGH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600